EXHIBIT B

U.S. Application No. 09/509,283
Claims as Pending Following Entry of Amendment of August 7, 2001

71. (Amended) A monoclonal antibody that recognizes a human 8F4 polypeptide or a fragment thereof, wherein said 8F4 polypeptide:

a) is an inducible T cell costimulatory molecule;

b) occurs on two-signal-activated human T lymphocytes;

c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE); and

d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE,

and wherein the monoclonal antibody, in conjunction with anti-CD3 monoclonal antibody OKT3, costimulates human T lymphocytes.

72. (New) The monoclonal antibody of Claim 71, wherein said monoclonal antibody recognizes the human 8F4 polypeptide of about 55 kilodaltons to 60 kilodaltons, as determined by non-reducing SDS-PAGE.

73. The monoclonal antibody of Claim 71, wherein said monoclonal antibody recognizes the peptide chain of about 27 kilodaltons, as determined by reducing SDS-PAGE.

74. The monoclonal antibody of Claim 71, wherein said monoclonal antibody recognizes the peptide chain of about 29 kilodaltons, as determined by reducing SDS-PAGE.

75. The monoclonal antibody of Claim 71, wherein said monoclonal antibody recognizes a human 8F4 polypeptide present on activated human $CD4^+$ T lymphocytes and activated human $CD8^+$ T lymphocytes.

76. (Amended) A monoclonal antibody that recognizes a human 8F4 polypeptide or a fragment thereof, wherein said 8F4 polypeptide:

a) is an inducible T cell costimulatory molecule;

b) occurs on two-signal-activated human T lymphocytes;

c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE); and

d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE,

and wherein the monoclonal antibody inhibits a biological activity of the human 8F4 polypeptide.

78. (Amended) A hybridoma that produces a monoclonal antibody that recognizes a human 8F4 polypeptide or a fragment thereof, wherein said 8F4 polypeptide:

a) is an inducible T cell costimulatory molecule;

b) occurs on two-signal-activated human T lymphocytes;

c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE); and

d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE,

and wherein the monoclonal antibody, in conjunction with anti-CD3 monoclonal antibody OKT3, costimulates human T lymphocytes.

79. The hybridoma of Claim 78, wherein said hybridoma produces a monoclonal antibody that recognizes the human 8F4 polypeptide of about 55 kilodaltons to 60 kilodaltons, as determined by non-reducing SDS-PAGE.

80. The hybridoma of Claim 78, wherein said hybridoma produces a monoclonal antibody that recognizes the peptide chain of about 27 kilodaltons, as determined by reducing SDS-PAGE.

81. The hybridoma of Claim 78, wherein said hybridoma produces a monoclonal antibody that recognizes the peptide chain of about 29 kilodaltons, as determined by reducing SDS-PAGE.

82. The hybridoma of Claim 78, wherein said hybridoma produces a monoclonal antibody that recognizes a human 8F4 polypeptide present on activated human $CD4^+$ T lymphocytes and activated human $CD8^+$ T lymphocytes.

83. (Amended) A hybridoma that produces a monoclonal antibody that recognizes a human 8F4 polypeptide or a fragment thereof, wherein said 8F4 polypeptide:

a) is an inducible T cell costimulatory molecule;

b) occurs on two-signal-activated human T lymphocytes;

c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE); and

d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE,

and wherein said hybridoma produces a monoclonal antibody that inhibits a biological activity of the human 8F4 polypeptide.

85. (Amended) A pharmaceutical composition comprising a monoclonal antibody that recognizes a human 8F4 polypeptide or a fragment thereof, wherein said 8F4 polypeptide:

a) is an inducible T cell costimulatory molecule;

b) occurs on two-signal-activated human T lymphocytes;

c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE); and

d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE,

and wherein the monoclonal antibody, in conjunction with anti-CD3 monoclonal antibody OKT3, costimulates human T lymphocytes.

86. (Amended) A pharmaceutical composition comprising a monoclonal antibody that recognizes a human 8F4 polypeptide or a fragment thereof, wherein said 8F4 polypeptide:

a) is an inducible T cell costimulatory molecule;

b) occurs on two-signal-activated human T lymphocytes;

c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE); and

d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE,

and wherein the monoclonal antibody inhibits a biological activity of the human 8F4 polypeptide.

88. A method for producing the monoclonal antibody of Claim 71 or 76, comprising: culturing an antibody-secreting hybridoma obtained by fusion of a myeloma cell line cell with a spleen cell of a mouse immunized with 2-signal-activated human T lymphocytes, such that the monoclonal antibody is produced.

89. (New) The monoclonal antibody of Claim 76, wherein said monoclonal antibody recognizes the human 8F4 polypeptide of about 55 kilodaltons to 60 kilodaltons, as determined by non-reducing SDS-PAGE.

90. (New) The monoclonal antibody of Claim 76, wherein said monoclonal antibody recognizes the peptide chain of about 27 kilodaltons, as determined by reducing SDS-PAGE.

91. (New) The monoclonal antibody of Claim 76, wherein said monoclonal antibody recognizes the peptide chain of about 29 kilodaltons, as determined by reducing SDS-PAGE.

92. (New) The monoclonal antibody of Claim 76, wherein said monoclonal antibody recognizes a human 8F4 polypeptide present on activated human $CD4^+$ T lymphocytes and activated human $CD8^+$ T lymphocytes.

93. (New) The hybridoma of Claim 83, wherein said hybridoma produces a monoclonal antibody that recognizes the human 8F4 polypeptide of about 55 kilodaltons to 60 kilodaltons, as determined by non-reducing SDS-PAGE.

94. (New) The hybridoma of Claim 83, wherein said hybridoma produces a monoclonal antibody that recognizes the peptide chain of about 27 kilodaltons, as determined by reducing SDS-PAGE.

95. (New) The hybridoma of Claim 83, wherein said hybridoma produces a monoclonal antibody that recognizes the peptide chain of about 29 kilodaltons, as determined by reducing SDS-PAGE.

96. (New) The hybridoma of Claim 83, wherein said hybridoma produces a monoclonal antibody that recognizes a human 8F4 polypeptide present on activated human $CD4^+$ T lymphocytes and activated human $CD8^+$ T lymphocytes.

97. (New) A method of producing a human 8F4 polypeptide-specific monoclonal antibody, comprising: culturing an antibody-secreting hybridoma obtained by fusion of a myeloma cell line cell with a spleen cell of a mouse immunized with an antigen comprising a human 8F4 polypeptide, wherein said human 8F4 polypeptide:

a) is an inducible T cell costimulatory molecule;

b) occurs on two-signal-activated human T lymphocytes;

c) exhibits a molecular weight of about 55 to 60 kilodaltons as determined by non-reducing sodium dodecyl sulphate polyacrylamide gel electrophoresis (SDS-PAGE); and

d) is a dimer of two peptide chains exhibiting molecular weights of about 27 kilodaltons and 29 kilodaltons, as measured by reducing SDS-PAGE,

such that the monoclonal antibody is produced.

98. (New) A monoclonal antibody produced by the method of claim 97.